

AI
Mury
separately supplying each of the audio signals to a loudspeaker system to reproduce the original plurality of sounds.

REMARKS

In response to the Office Action dated January 5, 1998 (Paper No. 8), Applicant requests reconsideration of all grounds of rejection.

Claims 1-34 are pending in this application.

Claims 1-22 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 3,710,034 to Murry (hereinafter referred to as Murry) in view of U.S. Patent No. 5,315,060 to Paroutaud (hereinafter referred to as Paroutaud).

Applicant's respectfully traverse this rejection for at least the following reasons. Neither Murry nor Paroutaud is analogous art to the claimed invention. There is no proper suggestion to combine Murry and Paroutaud. Neither Murry nor Paroutaud disclose every recitation of the claims.

A. Murry and Paroutaud Are Not Analogous Art to the Claimed Invention

Murry and Paroutaud are not analogous art to the claimed invention. The art relevant to a consideration of obviousness is the analogous art. *Wang Lab., Inc. v. Toshiba Corp.*, 993 F.2d 858, 864 (Fed. Cir. 1993). Non-analogous art is too remote to constitute prior art. *In re Clay*, 966 F.2d 656, 658 (Fed. Cir. 1992). Two criteria determine whether a particular reference is analogous art. First, if the reference is within the inventor's field of endeavor, then it is deemed analogous. *Wang*, 993 F.2d at 864; *Clay*, 966 F.2d at 659. Second, if the reference is reasonably pertinent to the particular problem with which the inventor was involved, it is prior art. *Wang*, 993 F.2d at 864; *Clay*, 966 F.2d at 659. As the Federal Circuit held in *Clay*:

A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem. Thus, the purposes of both the invention and the prior art are important in determining whether the reference is reasonably pertinent to the problem the invention attempts to solve. If a reference disclosure has the same purpose as the claimed invention, the reference relates to the same problem, and that fact supports use of that reference in an obviousness rejection. An inventor may well have been motivated to consider the reference when making this invention. If it is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it.

966 F.2d at 659.

Thus, to determine whether a particular reference is within the prior art, the court must first determine the inventor's goals and objectives. As stated in the Background and Objects of the Invention, one of the goals and objects of the present invention is to eliminate problems associated with the spatial separation technique for sound reproduction (p.3, l.17 - p.5, l.11). The field of endeavor for the present invention is to avoid the use of the spatial separation technique, among other things. Murry uses a spatial separation technique for recording sound sources so that a multi-dimensional playback can be achieved. The disclosure of Murry is not within the field of endeavor of the present invention, nor is the disclosure pertinent to the problems addressed by the present invention. Thus, the criteria for analogous art is not present in the disclosure of Murry. Therefore, Murry is not analogous art to the present invention.

Nor is Paroutaud analogous art to the present invention. Another object of the present invention is to provide a system capable of capturing sound from sound sources and replaying the sound on a loudspeaker system, "where each loudspeaker system comprises a plurality of loudspeakers or a plurality of groups of loudspeakers (e.g. loudspeaker clusters) customized for reproduction of specific types of sound sources or group(s) of sound sources. Preferably the

customization is based at least in part on characteristics of the sounds to be reproduced by the
loudspeaker or based on dynamic behavior or groups of sounds.” Specification, p.8, ll.6-8.

Thus, the field of endeavor for the present invention involves reproduction on loudspeaker
systems of captured sound(s). The present invention is designed to improve the output of a
loudspeaker system(s). Paroutaud, however, is not pertinent to solving these concerns. The
invention disclosed in Paroutaud is directed toward eliminating problems associated with
conventional loudspeakers. The output means of Paroutaud involve acoustic devices driven by
transducers. Paroutaud attempts to eliminate the use of loudspeakers to reproduce the sound.
The disclosure in Paroutaud is not within the field of endeavor of the present invention, nor is it
pertinent to the problem with which Applicant is involved. Therefore, Paroutaud is not analogous
art to the present invention.

B. There Is No Suggestion to Combine the References

Murry discloses a number of microphones in separate locations in a room. The
microphones record all of the sound in the room for play back by stereo speakers in a similar
locations in another room. The Murry disclosure describes the process of playing back the
recorded sound through speakers to replicate the sound in the original room.

Paroutaud, however, specifically teaches that stereo speakers are not desired. “The
performance sample passage method permits the faithful recreation of a musical performance
without the limiting effect of speakers” (abstract). “There is no fidelity loss and no noise or
distortion is introduced at any time since the sounds are emanating from the instrument
transducers themselves, not electronic devices and fiber loudspeakers” (col.3, ll.10-15).
“Because actual acoustic musical instruments are driven by the MIDI signal, a ‘live’ acoustic
sound is created” (col.5, ll.25-27). Paroutaud then describes how individual instruments, such as

stringed instruments (violins, guitars, etc.), wood winds or brass (clarinets, etc.) and drums, are
“played” by this method. Only one loud speaker is disclosed in Paroutaud, apparently for use in
replicating vocal input(s). All other outputs in Paroutaud involve transducers operating
acoustical instruments. Paroutaud specifically teaches away from using speakers. A person of
ordinary skill in the art, looking at the disclosure in Paroutaud, would be led away from
combining its teachings with Murry.

Additionally, Murry teaches that each microphone in the recording room receive sound
from all of the sound sources in the room. The mixture of sound sources is then played back on
speakers. This technique, as mentioned previously, is referred to as spatial separation.
Paroutaud, however, teaches that each sound source is separately recorded, but that the signals
are fed through mixer 115. The system used in Paroutaud is not designed for the spatial
separation technique. One of ordinary skill in the art would not be motivated to combine the
invention of Paroutaud with the invention of Murry. The disclosures of Murry and Paroutaud
teach away from combine the two references.

In *In re Wesslau*, 353 F.2d 238, 147 USPQ 391 (CCPA, 1965), the Court of Customs and
Patent Appeals cautioned that “it is impermissible within the framework of section 103 to pick
and choose from any one reference only so much of it as will support a given position, to the
exclusion of other parts necessary to the full appreciation of what such reference fairly suggests
to one of ordinary skill in the art.” The entire disclosure of Murry and Paroutaud must be
examined to determine what the references would suggest to one of ordinary skill in the art. As
noted above, the disclosures of Murry and Paroutaud teach away from combining the two
references.

The Office Action has not identified any suggestion in Murry, Paroutaud, or elsewhere that would lead one of ordinary skill in the art to combine the two references. For at least these reasons, the claims are patentable over the Murry in view of Paroutaud.

4 C. Murry Does Not Disclose Every Recitation of the Claims

Claims 1-22 recite “means for separately receiving” sounds produced by a plurality of sound sources. As noted in the Office Action, “Murry does not disclose that the receiving sounds are produced by the plurality of sound sources.” Thus, Murry does not disclose every recitation of claims 1-22.

New claims 23-29 recite “each receiving means associated with a single sound source.”

This recitation is not disclosed in Murry. As noted above, Murry disclose the use of a spatial separation technique to capture sound. Microphones are placed in various locations in a recording room. Each microphone then receives sound from each source in the room, thereby each microphone is associated with a number of sound sources. Murry does not disclose the recitation of “each receiving means associated with a single sound source.”

Claims 15, 19, and 30-34 recite “converting each of the plurality of sounds to an audio signal.” Murry does not disclose this recitation. Each sound in Murry is not converted into an audio signal. Rather, all of the sounds received by a microphone are converted into an audio signal. Therefore, Murry does not disclose at least this recitation of the claims.

D. Paroutaud Does Not Disclose Every Recitation of the Claims

Paroutaud discloses a line 96 to couple microphones 112 to Multi-Track Storage 113, a line 21 to connect Data Extractor 117 to MIDI Converter 118, and a line 24 to connect Transducer Drivers 120 to Multi-Track Amplifier/Mixer 115. Each line is a single line, as

Paroutaud refers to both a line (*i.e.* a single line), for example, line 26 (col. 7, l.4), and lines (*i.e.* multiple lines), for example, lines 25 (col.7, l.11). If audio signals are to be simultaneously transmitted across a line, the audio signals would have to mix. The claims of the present invention all recite “without mixing the audio signals.” Therefore, at least this recitation is not disclosed in Paroutaud.

Newly added claims 23-34 recite audio signals which act separately and simultaneously. Claims 23, and 26 recite “simultaneously and separately storing” audio signals. Claims 24, and 31 recite “simultaneously and separately retrieving” audio signals. Claims 25, 28, 32, and 34 recite “simultaneously and separately amplifying” audio signals. Claim 27 recites “reading the stored audio signals from the recording medium separately.” Claim 29 recites “simultaneously amplifying” audio signals. Claim 30 recites “simultaneously and separately recording” audio signals. Claim 33 recites “simultaneously and separately transmitting” audio signals. If audio signals in Paroutaud are transmitted through the system simultaneously, the audio signals mix when using a single line. Therefore, if the signals in Paroutaud act simultaneously, this disclosure will not meet the claim recitation of “without mixing audio signals.”

Additionally, Paroutaud discloses a Multi-Track Amplifier/Mixer 115. The audio signals are transmitted through the Amplifier/Mixer 115 to a plurality of outputs. As stated above, the claimed invention does not mix the audio signals. Thus, Paroutaud does not disclose this recitation of the claims.

CONCLUSION

In view of the foregoing, the application is believed to be in condition for allowance and notification thereof is respectfully requested. Should any outstanding issues remain, the Examiner is invited to telephone the undersigned at 202-955-1869.

Respectfully submitted,

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